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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/810,572 | 03/29/2004 | Philippe Renard | P24493 | 9533 |

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| EXAMINER | |
|---|---|
| BASINGER, SHERMAN D | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3617 | |

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/810,572 | RENARD ET AL. | |
| | Examiner | Art Unit | |
| | Sherman D. Basinger | 3617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16 and 18-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Specification*

1. Paragraph [0001] should be amended to state that application 10/089151 is now patent 6,736,689.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3, 5-14, 29, 31, 32, 36, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 575 130 in view of Ellis.

EP 130 discloses a hollow aquatic gliding board comprising:

a lower half-shell 16 having no lateral side-walls;

an upper half-shell 14 comprising a sheet having downwardly curved side-walls, the upper half shell being adapted to support a standing person during use of the gliding board;

at least one longitudinal partition 20, at least said one longitudinal partition vertically connecting said lower and upper half-shells.

*EP 130 discloses both the upper shell and the lower shell as having honeycomb cores, but does not disclose the upper shell as comprising a sheet of foam and the longitudinal partition consisting essentially of foam.*

Ellis discloses honeycomb panels used as a core of a surfboard, the cells of the panels being filled with hardened granular foam material.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to fill the cells of the honeycomb cores of the upper shell and the lower half shell of EP 130 with granular foam similar to that used by Ellis. As such the upper and lower shell would comprise a sheet of foam. Motivation to do so is given by Ellis in column 2, lines 20 and 21.

*Masters discloses in figure 3B a partition which can be consider to be substantially consisting essentially of foam.*

*It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to replace the partition 20 of EP 130 with a partition similar to that in figure 3B of Masters but consisting essentially of foam. Motivation to do so can be found in column 3, lines 45-47 of Masters.*

*In view of the modification of EP 130 to have a partition similar to that in Figure 3B of Masters, the at least one longitudinal partition of EP 130 would then be made of an elastic foam providing the upper half shell of EP 130 with an ability to deflect relative to the lower half shell under pressure exerted by a foot of the user and the elastic foam would be exposed to an inner cavity of the board. Note that in figure 3B of Masters the partition cushions the bottom edge of web member A'. This type of cushioning would allow the deflecting of the upper shell of the board of EP 130.*

Claims 5 and 6 are being construed as product by process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based upon the product itself-see MPEP 2113.

For claim 7, see EP 130 column 4, lines 53-56.

For claim 8, see EP 130 column 6, lines 12-32.

The combination of EP 130, Ellis and Masters does not disclose that
said at least one partition is made of polypropylene foam, that
said polypropylene foam comprises an expanded polypropylene particle foam
having a density of approximately 60 kg/m3, that
said expanded polypropylene particle foam has a compressive stress at 25%
of deformation of approximately 350 kpa measured according to ISO standard 844, that
said polypropylene foam comprises an expanded polypropylene particle foam
having a density of approximately 20-100 kg/m3 and that
said expanded polypropylene particle foam has a compressive stress at 25%
of deformation of approximately 100-600 kpa measured according to ISO standard 844.

However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use as the foam filling the cells of the honeycomb core of EP 130 polypropylene foam that
comprises an expanded polypropylene particle foam
having a density of approximately 60 kg/m3, that
has a compressive stress at 25%

of deformation of approximately 350 kpa measured according to ISO standard 844, that has a density of approximately 20-100 kg/m3 and that

has a compressive stress at 25%

of deformation of approximately 100-600 kpa measured according to ISO standard 844. Motivation to do so is to use a particle foam which while providing strength to the partition of EP 130, is durable, light and flexible.

EP 130 does not disclose that said at least one longitudinal partition extends along at least 70 percent of the length of the inner cavity. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the partition 20 to extend along at least 70 percent of the length of the inner cavity of EP 130. As shown in figure 1, the partition extends near to 70 percent of the length of the inner cavity. To modify the partition 20 to extend at least 70 percent of the length of the inner cavity would not require a drastic change in its length. By extending the partition 20 a little more in EP 130, the strength of the upper shell will be improved in the area toward foot straps 170.

The partition provided to EP 130 in view of Masters would not include a rigid honeycomb structure, would comprise a material continuous along a height and along a bottom width of the foam B' of Masters, would be continuous along a height and along a bottom width of the longitudinal partition, and would comprise a material having a compressible elasticity or viscoelasticity to allow the upper half shell to deflect downwardly relative to the lower half shell under pressure exerted by a foot of a user on

the upper half shell and to cause the upper half shell to recover upwardly upon cessation of the pressure exerted by the foot (see column 3, line 40 of Masters). As shown in figure 2 of EP 130, the upper half shell is not symmetrical with respect to the lower half shell.

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 130, Ellis and Masters as combined for claim 1 and further in view of Wojcik. The partition of EP 130 as modified by Ellis does not comprise a plurality of longitudinal partitions made of elastic foam which is exposed to an inner cavity of the board. Note the plurality of partitions used by Wojcik in figure.
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, in view of the use of multiple partitions by Wojcik, to provide more than one partition 20 in EP 130 which has been modified to consist essentially of foam in view of figure 3B of Masters. Motivation to do so is to provide vibration dampening in more areas of the board.

5. Claims 15, 16, 18-28, 30, 33, 34, 35, 37-41, 43, and 45-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itnyre et al in view of Ellis and Masters. Itnyre et al disclose an aquatic gliding board comprising:

a deck 12 having a downwardly concave transverse cross section and being adapted to support a standing person during use of the gliding board;

a hull 11 connected to said deck to form a subassembly;

at least one longitudinally extending partition, 19, 65 and 66 positioned within said subassembly interposed between said deck and said hull, said partition comprising a material 65,66

having an elasticity to allow said deck to deflect under pressure of a foot of a surfer on said deck relative to said hull (if the deck vibrates it flexes).

Itnyre et al does not disclose that the deck and hull comprise foam material; however, Itnyre et al does disclose the use of honeycomb cores for the deck and hull.

Ellis discloses honeycomb panels used as a core of a surfboard, the cells of the panels being filled with hardened granular foam material.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to fill the cells of the honeycomb cores of the deck and hull of Itnyre et al with granular foam similar to that used by Ellis. Motivation to do so is given by Ellis in column 2, lines 20 and 21.

Itnyre et al does not disclose that the partition comprises a polymeric elastic foam material having a compressible elasticity or viscoelasticity to provide the deck with an ability to deflect downwardly under pressure exerted by a foot of a user on the deck relative to the hull and to cause the deck to recover from the deflection upon cessation of said pressure exerted by the foot. *Note that the deck of Itnyre et al already has the*

*ability to deflect downward under pressure exerted by a foot of a user as the deck can vibrate. If the deck vibrates it deflects both upward and downward. Layers 65 and 66 of Itnyre et al provide the deck with an ability to deflect downwardly under pressure exerted by a foot of a user on the deck relative to the hull and to cause the deck to recover from the deflection upon cessation of said pressure exerted by the foot.*

Masters in figure 3B discloses a partition B' comprising a polymeric elastic foam polyethylene having a compressible elasticity or viscoelasticity to provide the deck of the kayak with the ability to deflect downwardly under pressure (see column 3, lines 39-41 of Masters-cushioning web A from the kayak inner bottom means that the deck flexes downward under pressure pushing web A toward the inner surface of the kayak hull).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to replace the partition of Itnyre et al with a partition similar to that of figure 3B of Masters. This would allow the partition to comprise a polymeric elastic foam material having a compressible elasticity or viscoelasticity to provide the deck with an ability to deflect downwardly under pressure exerted by a foot of a user on the deck relative to the hull and to cause the deck to recover from the deflection upon cessation of said pressure exerted by the foot. Motivation to do so is to use a partition not made up of layers and different materials of the partition in figure 13 of Itnyre et al to deaden vibration as disclosed in Itnyre et al column 4, lines 47-49.

The foam of the partition provided to Itnyre et al in view of Masters would have a longitudinal side surface exposed to an inner cavity of the board of Itnyre et al.

Claim 26 is being construed as a product by process claim. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based upon the product itself-see MPEP 2113.

The combination of Itnyre et al, Ellis and Masters does not disclose that
said material of said partition is polypropylene foam and that
said polypropylene foam of said partition comprises an expanded polypropylene particle foam, that
said foam material of said deck and said foam material of said hull comprise a polystyrene foam or a polyurethane foam and
that said foam material of said deck and said foam material of said hull comprise an extruded polystyrene foam.
However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to make said material of said partition an expanded polypropylene particle foam, and

said foam material of said deck and said foam material of said hull extruded polystyrene foam or a polyurethane foam.

Motivation to do so is to use a well know kind of foam material which is easy to work with, is durable, is light, and which has characteristics desirable for use as a filler in the honeycomb cores of Itnyre et al and as the foam of the partition of the board of Itnyre et al.

The partition of Masters does not include a honeycomb structure. As such the partition provided to Itnyre et al in view of Masters would not include a honeycomb structure.

The partition of Masters is continuous along its height and along its bottom width. As such the partition provided to Itnyre et al in view of Masters would be continuous along its height and along its bottom width.

The partition of Masters figure 3B substantially consist essentially of a foam; therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to make the partition provided to Itnyre et al in view of Masters consist essentially of a foam.

The hull of Itnyre et al is considered to have no lateral sidewalls.

In Itnyre et al the deck and hull are symmetrical. Ellis shows a deck and hull not symmetrical. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to make the

deck and hull of Itnyre et al not symmetrical with each other in the manner taught by Ellis. Motivation to do so is to change the design of the surfboard of Itnyre et al to change its surfing characteristics to enhance enjoyment of the board.

The partition in Itnyre et al extends along at least **about** 70 per cent of the length of the inner cavity.

In modifying the partition provided to Itnyre et al in view of Masters to consist essentially of foam, the partition would comprise no additional structural element extending along at least a majority of the height of the inner cavity.

***Response to Arguments***

6. Applicant's arguments filed June 20, 2005 have been fully considered but they are not persuasive.

7. With regard to applicant's arguments under the subtitles Withdrawal of §103 Rejection Based Upon EP '130 in view of ELLIS and "Consisting Essentially Of" it is first pointed out that the transitional phrase "consisting essentially of" occupies a middle ground between closed claims that are written in a "consisting of" format and fully open claims that are drafted in a "comprising format". MPEP 2111.03. "Consisting essentially of" will be construed as "comprising" absent a clear indication in the specification or claims of what the basic and novel characteristics actually are.

None the less, EPA 130 has now been modified with Masters. Masters in figure 3B discloses a partition which is substantially consisting essentially of foam B'. The partition in figure 3 of Masters definitely comprises foam. This foam cushions the deck and as such is elastic as claimed by applicant. Because applicant amended claim 1 to

define the partition as consisting essentially of foam, EP 130 is now combined with Ellis and Masters to reject claim 1 and most of the claims depending from claim 1. The rejection of claim 1 and its dependent claims stand.

8. With regard to applicant's arguments presented under the subtitle Partition Made of Polypropylene Foam, it is pointed out that the foam of Masters is an elastic foam as it is used to cushion. Because Masters already uses a foam which can cushion to choose another foam such as an expanded polypropylene particle foam would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. One using a cushioning foam would considered all foams which cushion in choosing the better of the two, the cheaper of the two or the more available of the two.

9. The statement referencing MPEP 2133.01 was meant for claim 15 as opposed to claim 1 as noted by applicant.

10. With regard to applicant's arguments under the subtitle Withdrawal of §103 Rejection Based Upon EP '130 in view of ELLIS and MASTERS, it is pointed out that the combination of EP '130 and Masters has been modified in view of the amendment to claim 1 to a combination based upon figure 3B of Masters and EP 130. In figure 3B of Masters the partition consist essentially of for the most part foam. This foam in this partition is used for cushioning. This teaching is applicable to the surfboard of EP 130 to provide a partition which will cushion the deck. Thus to provide a partition in place of the partition of EP 130 which consist essentially of foam and cushions any deflection of the upper deck whether by foot or blow, would be desirable.

11. With regard to applicant's arguments under the subtitle Withdrawal of §103 Rejection Based Upon EP '130 in view of ELLIS, WOJCIK, and MASTERS, it is pointed out that providing more that one partition in view of Wojcik would be desirable. One partition modified to be similar to the partition of figure 3B of Masters provides some cushioning. Two or three partitions will provide more cushioning which is desirable.

12. With regard to applicant's arguments concerning the combination of Itnyre et al with Ellis and more specifically with Masters, it is pointed out that in view of the amendment to claim 15, claim 15 is rejected with a combination of Itnyre et al and figure 3B of Masters. In figure 3B of Masters the partition foam B', which is of a polymeric foam polyethylene, extends from the hull to the deck of the Kayak. The foam B' is used to cushion the hull and to cushion the inner surface of the kayak hull from the web member A'. Since the foam B' acts as a cushion it has the elasticity claimed by applicant. The partition in figure 3B of Masters also is for the most part foam such that it is almost consisting essentially of foam. In figure 13 of Itnyre et al the partition made up of stringer 14, foam 19 and layers 65 and 66 deadens vibrations. In other words, the adding of layers 65 and 66 to the partition in figure 13 of Itnyre et al provides cushioning. Thus to replace the partition in figure 13 of Itnyre et al with a partition similar to that in figure 3B of Masters would be to replace one cushioning partition with another. The cushion of Masters is more simple in that it doesn't require a stringer, a foam block and two layers. It only requires a foam portion with a thin web. This makes it desirable to replace the partition of figure 13 of Itnyre et al with a partition similar to that of Masters figure 3B.

13. If the surfboard deck of Itnyre et al can vibrate, then it can be flexed by the foot of a user bearing down on it. Such flexing can be cushioned by a partition similar to that of Masters.

14. Claim 15 does not require the partition to consist essentially of foam; however, for those claims that do, to make the partition provided to Itnyre et al in view of Masters, figure 3B, to consist essentially of foam would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. This would only require the foam partition of Masters to exclude the web A or to make web A of a more rigid foam.

15. With regard to any argument concerning the use of expanded polypropylene particle foam as the material of the partition, it is urged that since Masters already uses a foam which can cushion, to choose another foam such as an expanded polypropylene particle foam would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. One using a cushioning foam would considered all foams which cushion in choosing the better of the two, the cheaper of the two or the more available of the two.

16. Applicant remarks concerning the new claims are noted.

***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 571-272-6679. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sherman D. Basinger
Primary Examiner
Art Unit 3617

7/1/05

7/1/05